



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,995	11/30/2001	Giovanni Frezza	856063.722	3898
500 7590 05/07/2007 SEED INTELLECTUAL PROPERTY LAW GROUP PLLC 701 FIFTH AVE SUITE 5400 SEATTLE, WA 98104			EXAMINER NADAV, ORI	
			ART UNIT 2811	PAPER NUMBER
			MAIL DATE 05/07/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

717

Office Action Summary

Application No.

09/997,995

Applicant(s)

FREZZA, GIOVANNI

Examiner

Ori Nadav

Art Unit

2811

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19, 21, 22, 24, 27-29, 31-33, 36, 38 and 40-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19, 21, 22, 24, 27-29, 31-33, 36, 38 and 40-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

In view of the appeal brief filed on 1/8/2007, PROSECUTION IS HEREBY REOPENED. A new rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, a projecting portion is shaped to form a ring, and a projection portion surrounded by dyke must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Figures 7-8 are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include reference sign(s) 14 mentioned in the description of said figures.

Art Unit: 2811

Figures 2A-2B are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include reference sign(s) 50 mentioned in the description of said figures.

Figures 7-8 are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) 20, 42 not mentioned in the description of said figures.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 33, 38, 40 and 42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no support for a device comprising all the structural limitations of dependent claim 31, and a window being defined by tapering walls that taper inwardly toward the electronic circuit, as recited in claim 33.

There is no support for a device comprising all the structural limitations of dependent claim 31, and a protective layer being shaped to form a ring on the electronic circuit, as recited in claim 38.

There is no support for a device comprising all the structural limitations of dependent claims 22 and 29, and a window being defined by tapering walls that taper inwardly toward the electronic circuit, as recited in claims 40 and 42.

Claims 33, 38, 40 and 42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in

Art Unit: 2811

the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

There is no support for a device comprising all the structural limitations of dependent claim 31, and a window being defined by tapering walls that taper inwardly toward the electronic circuit, as recited in claim 33.

There is no support for a device comprising all the structural limitations of dependent claim 31, and a protective layer being shaped to form a ring on the electronic circuit, as recited in claim 38.

There is no support for a device comprising all the structural limitations of dependent claims 22 and 29, and a window being defined by tapering walls that taper inwardly toward the electronic circuit, as recited in claims 40 and 42.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19, 21-22, 24, 27-29, 31-33, 36, 38 and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grider (5,105,262) in view of Nomura et al. (5,948,991).

Art Unit: 2811

Regarding claims 19, 22, 27, 29, 31 and 38, Grider teaches in figures 7 and related text a packaged electronic device ready for electronic use, comprising:

- a semiconductor integrated electronic circuit 11 including an image sensor 32;
- a protective package 12, 13 surrounding and supporting the electronic circuit, the protective package having a window over the electronic device such that the electronic device can be at least partially activated from outside of the protective package; and
- a projecting portion of material (part of material 13 which is located directly above the electronic device) projecting from a surface of the electronic device into the window, the projecting portion being structured to enable the electronic device to be activated through the projecting portion when the electronic device is in use,

wherein said projecting portion is surrounded by dyke or barrier formed on a surface of the electronic circuit.

Grider does not explicitly state that the protective package is a plastic protective package.

Nomura et al. teach in figure 6 and related text a plastic protective package 122.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a plastic protective package in Grider's device in order to reduce the cost of the making the device, to improve productivity and to provide better protection to the chip.

Regarding the process limitations of a protective package having a window over the electronic device and a projecting portion of elastic material projecting from a surface of the electronic device into the window, these would not carry patentable

Art Unit: 2811

weight in this claim drawn to a structure, because distinct structure is not necessarily produced. Applicant clearly teaches in figure 2B a window 51 in protective package 9, wherein said window is sealed/closed with a "projecting portion of elastic material" 51. Note that a "product by process" claim is directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Fessmann*, 180 USPQ 324; *In re Avery*, 186 USPQ 161; *In re Wertheim*, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); and *In re Marosi et al.*, 218 USPQ 289, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that the applicant has the burden of proof in such cases, as the above case law makes clear.

Regarding claims 24, 32, 36, 41 and 43 prior art's device teaches a protective package also contacts the top of the electronic circuit adjacent to the window, and wherein the electronic circuit includes a proximity sensor.

Regarding claims 21, 28, 33, 40 and 42, since the projecting portion of elastic material projecting from a surface of the electronic device into the window of prior art's device is arbitrarily chosen as part of material 13 which is located directly above the electronic

Art Unit: 2811

device, then prior art teaches window is defined by tapering walls that taper inwardly toward the electronic circuit.

Regarding claims 19, 27 and 31, Grider further teaches in figures 7 and related text a projecting portion of material projecting from a surface of the electronic device into the window, the projecting portion being structured to enable the electronic device to be activated through the projecting portion when the electronic device is in use, wherein said projecting portion is shaped to form a ring on the electronic circuit.

Claims 19, 21-22, 24, 27-29, 31-33, 36, 38 and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamawaki et al. (4,894,707) in view of Nomura et al. (5,948,991).

Regarding claims 22, 29, 31 and 38, Yamawaki et al. in figure 5g and related text a packaged electronic device ready for electronic use, comprising:

- a semiconductor integrated electronic circuit including an image sensor;

- a plastic protective package 9 surrounding and supporting the electronic circuit, the protective package having a window over the electronic device 1 such that the electronic device can be at least partially activated from outside of the protective package; and

- a projecting portion of elastic material (part of material 9 which is located in direct contact with ring 3) projecting from a surface of the electronic device into the window,

Art Unit: 2811

the projecting portion being structured to enable the electronic device to be activated through the projecting portion when the electronic device is in use, wherein

said projecting portion on the electronic circuit is surrounded by ring shaped dyke or barrier 3 formed on the electronic circuit.

Yamawaki et al. do not explicitly state that the protective package is a plastic protective package.

Nomura et al. teach in figure 6 and related text a plastic protective package 122.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a plastic protective package in Yamawaki et al.'s device in order to reduce the cost of the making the device, to improve productivity and to provide better protection to the chip.

Regarding claims 21, 24, 28, 32, 33, 36 and 40-43, prior art's device teaches a protective package also contacts the top of the electronic circuit adjacent to the window, wherein the window is defined by tapering walls that taper inwardly toward the electronic circuit, and wherein the electronic circuit includes a proximity sensor.

Regarding claims 19 and 27, Yamawaki et al. in figure 5g and related text a substantially the entire claimed structure, as applied above, except a pressure sensor chip.

Nomura et al. teach in figure 6 and related text a pressure sensor 130 chip.

Art Unit: 2811

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a pressure sensor chip in Yamawaki et al.'s device in order to use the device in an application which requires a pressure sensor chip.

Response to Arguments

Applicant's arguments with respect to claims 19, 21-22, 24, 27-29, 31-33, 36, 38 and 40-43 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ori Nadav whose telephone number is 571-272-1660. The examiner can normally be reached between the hours of 7 AM to 4 PM (Eastern Standard Time) Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on 571-272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



O.N.
4/30/07

ORI NADAV
PRIMARY EXAMINER
TECHNOLOGY CENTER 2800